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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/602,124

06/24/2003

Tatsuru Kobayashi

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11/19/2004

NATH & ASSOCIATES

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EXAMINER

CONSILVIO, MARK J

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,124

Applicant(s)

KOBAYASHI ET AL.

Examiner

Mark Consilvio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/04/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) was received on 08/04/2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claim 5 is objected to because of the following informalities: The terms, "wide-side" and "tele-side," are not standard terms conventional to the art and have not been defined in the

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specification. Based on their use in the specification, the examiner interprets “wide-side” and “tele-side” to be synonymous with the conventional terms, “wide-angle” and “telephoto,” respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jikihara (US Patent No. 5,947,577) in view of Sigler (US Patent No. 5,089,910).

Jikihara shows a data presentation apparatus (120) comprising a data laying table (122) on which data (144) such as a written/drawn draft and solid material are to be laid. Jikihara also shows a reflection mirror (128) disposed above the vicinity of a side part of the data laying table for obliquely taking an image light of the data (144) laid on the data laying table (122) and reflecting the image light of the data. Jikihara further shows an image forming optical system (126) that cooperates with the reflection mirror (128) to form the image light of the data (144) reflected by the reflection mirror (128) into an image. And Jikihara shows an image pickup element (124) for receiving the image light of the data formed into the image by the image forming optical system (126). (*See fig. 6A and col. 6, lines 30-60*).

Jikihara is silent to the mirror being aspheric. However, the use of aspheric-shaped mirrors in optical systems is well known to a person of ordinary skill in the art. Specifically,

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Sigler states, "Asphericity is sometimes introduced into an optical system as a design expedient to improve performance with respect to monochromatic aberrations (particularly spherical aberration), and/or to obtain a reduction in the number of optical components needed to achieve optical performance..." (*See col. 1, lines 31-38*). Since the shape of a mirror in an optical system is determined by the design and configuration of the system, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to replace the plane mirrors of Jikihara with an aspheric mirror as taught by Sigler to direct to light from the data table to the image forming system. One of ordinary skill in the art would have been motivated to do this to be able move the mirror to the side while reducing the number of optical components. Further, one would want to correct the distortion caused by an angled displacement of the mirror, as well as, the spherical aberration caused by the optical zooming system.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jikihara (US Patent No. 5,947,577) in view of Sigler (US Patent No. 5,089,910) and in further view of Okino et al. (US Patent No. 5,867,217).

Jikihara and Sigler disclose or suggest all the limitations of claim 1 as stated supra. While Jikihara and Sigler are silent to the exact zooming means as disclosed by the applicant, Okino et al. teaches the zooming means of claims 2-5.

Okino et al. shows a variable-power optical system (2) which optically varies magnification of the image light of the data formed into the image by the image forming optical system (1) and which is disposed between the image forming optical system (1) and the image

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pickup element (13). (*See fig. 1*). And Okino et al. also shows the variable-power optical system (2) capable of switching magnification of the image formed by the image forming optical system (1) between a wide-angle (W) magnification or telephoto (T) magnification. (*See figs. 1 and 6*). Further, Okino et al. shows a variable-power optical system (2) is disposed so as to be movable in a plane crossing at right angles to a light axis of the image forming optical system. (*See fig. 1*). Also, Okino et al. shows an electronic zoom processing device (15) for electronically varying the magnification of the image light of the data formed into the image by the image forming optical system (1). (*See fig. 1*). And, Okino et al. shows the electronic zoom processing device (15) capable of electronically varying the magnification of the image formed by the image forming optical system (1) between the wide-angle (W) magnification and the telephoto (T) magnification. (*See figs. 1 and 6*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Jikihara, Sigler, and Okino et al. to provide an image capture apparatus that can perform both optical and electronic zooming functions. One of ordinary skill in the art would have been motivated to do this to provide an optical system capable of magnifying an image without a decrease to the field of view or degradation of the image as a whole.

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jikihara (US Patent No. 5,947,577) in view of Sigler (US Patent No. 5,089,910) and in further view of Nakao (US Patent No. 5,161,025).

Jikihara and Sigler disclose or suggest all the limitations of claim 1 as stated supra.

While Jikihara and Sigler are silent to the zooming means as disclosed in claim 2 and the image receiving system of claim 6, Nakao shows a variable-power optical system (118 and 120) which optically varies magnification of the image light of the data formed into the image by the image forming optical system (116) and which is disposed between the image forming optical system (116) and the image pickup element (122). (*See fig. 13*). Further, Nakao shows a plurality of image pickup elements (22 and 206) including light receiving regions having different sizes. Also, Nakao shows a light path branch device (208) for branching a light path toward the plurality of image pickup elements and disposed after the image forming optical system (16). (*See figs. 18*).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Jikihara, Sigler, and Nakao to provide an image capture apparatus that can perform a zooming function and provides a light path branch to a plurality of image pickup elements. One of ordinary skill in the art would have been motivated to do this provide to an optical system capable of magnifying an image and transmitting an image to both digital and photographic imaging elements.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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